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ABSTRACT

Written in response to a request to review the implementation of the Department of Agriculture's Electronic Dissemination of Information (EDI) system, this fact sheet discusses the performance of the contractor operating the system and the role of EDI in the Department of Agriculture's overall public dissemination activities. A letter from the associate director of the Information Management and Technology Division of the General Accounting Office provides summary responses to the following subcommittee questions: (1) Is the contractor meeting required deadlines for providing service to the public and to the Department of Agriculture users? (2) Are the quality of service and the range of data offered by the contractor consistent with the objectives of the EDI system? (3) Is the contractor offering retail information services in violation of the terms of the contract? (4) Are the charges to public users of the system consistent with the terms of the contract? and (5) What is the relationship between the Agricultural Marketing Service's Market News Network and the EDI system, and what coordination exists? More detailed responses to the subcommittee's questions, including a description of the system and discussion of the objectives, scope, and methodology of the investigation are appended, together with the subcommittee's letter of request. The two appendices constitute the major part of this report. (KM)

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Fact Sheet for the Chairman, Subcommittee on Government Information, Justice, and Agriculture, Committee on Government Operations, House of Representatives

January 1987

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DATA PROCESSING

Status of Agriculture's Electronic Dissemination of Information System

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United States
General Accounting Office
Washington, D.C. 20548

B-225251

Information Management and
Technology Division

January 5, 1987

The Honorable Glenn English
Chairman, Subcommittee on Government Information,
Justice, and Agriculture
Committee on Government Operations
House of Representatives

Dear Mr. Chairman:

In response to your January 20, 1986, request (see appendix II), we are providing answers to your questions on the Department of Agriculture's Electronic Dissemination of Information System and on the performance of the contractor operating this system. As requested at an August 7, 1986, briefing at your office, we have also included suggested agenda items for your discussion with the Department. Appendix I provides detailed information on the five questions in your letter.

In response to requests for agricultural information in an electronic form, the Department awarded a contract in September 1984 to Martin Marietta Data Systems to develop and operate an Electronic Dissemination of Information System. It was designed to electronically disseminate to system users a large range of perishable and time-sensitive agricultural data,[1] such as the Department's economic outlook and situation reports, weekly export sales reports, crop and livestock statistical reports, and press releases. The recipients of these data, the system users, include (1) the public, generally defined as agricultural information retailers, publishers, the news media, agribusiness establishments, etc., and (2) several Department of Agriculture agencies. The system became operational in July 1985. As of July 1986, 16 public users and 10 Department agencies were connected to the system. (See page 6.)

We interviewed officials of the contractor, selected firms that use the system, the Department, and eight of its agencies. We also reviewed pertinent documents obtained from these sources. In addition, we interviewed Department officials and selected users of the Market News Network operated by the Agricultural Marketing Service, a Department agency. As requested by your office, we did not obtain comments on this report from Department officials, the contractor, or the public users.

[1]Perishable and time-sensitive data is defined as data with a limited useful life, data which lose their significance if they do not reach the proper users in a timely manner, and data that, when replaced, are completely replaced.

(See page 6 for additional information on the objectives, scope, and methodology.)

The following summarizes the responses to the five questions you asked in your letter.

- Is the contractor meeting required deadlines for providing service to the public and to the Department of Agriculture users?

  The contractor met the required deadlines for providing the system and most services to the public and to Department users. The contractor was required to develop, deliver, and operate an information system for the Department by June 1985. This system was operational and all but one of the services - an electronic delivery method that was not fully installed until June 1986 - were provided by July 1985. Department officials considered the system delivery date acceptable in meeting the terms of the contract. (See page 7.)

- Are the quality of service and the range of data offered by the contractor consistent with the objectives of the Electronic Dissemination of Information System?

  The system's main objective is to make data in the system available to users as soon as the data are entered or at specified release times established by the Department's agencies. The quality of service improved over the system's first year of operation and is now consistent with system objectives. During the first year, the contractor missed many release times and dates for providing data to users. The delays were caused by contractor-related technical problems and agency-related administrative problems in entering data into the system. We also noted technical problems experienced by public users accessing and retrieving data from the system. All of these problems adversely affected the quality of service provided by the contractor.

  By the spring of 1986 the quality of service improved as the contractor corrected the technical data entry problems and the Department corrected the administrative data entry problems. The quality of service significantly improved beginning in July 1986, when the contractor corrected a major technical problem in accessing the system.

  The range of data offered by the contractor is determined by the agencies that enter data into the system. Most of the users we interviewed

were satisfied with the range of data, such as the variety of reports, available on the system. (See page 10.)

- Is the contractor offering retail information services in violation of the terms of the contract?

  We found no evidence that the contractor is offering retail information services, i.e., marketing the system in violation of the contract. The contract prohibits the contractor from selling or providing any data to other than authorized system users. In addition, the contract requires the contractor to make the data available to any public party meeting the technical and financial requirements of the system, and to make the data available without enhancing or changing them. We found no evidence that the contractor (1) sold or otherwise provided data obtained under the contract to anyone other than system users, or (2) enhanced or changed data provided to public users. We also found that all public users of the system met the definition of a public user. (See page 14.)

- Are the charges to public users of the system consistent with the terms of the contract?

  The contract does not specify charges for services to the public users. The public user price schedule was established by the contractor and is contained in separate contracts with each public user. Six of the nine public users we interviewed stated that the contractor's current charges for services were reasonable. Because public users are required to receive large units of data, two users objected to paying for more data than they needed. One user believed the charges were excessive. (See page 15.)

- What is the relationship between the Agricultural Marketing Service's Market News Network and the Electronic Dissemination of Information System, and what coordination exists?

  The Agricultural Marketing Service's network collects and disseminates highly perishable market prices for a large variety of agricultural commodities across the country. The data on the network range from daily wholesale prices for specific fruits, vegetables, or meats in a particular city market to weekly national summary prices for groups of commodities. The network's primary mission is to collect information from most of the Marketing Service's 120 field offices and immediately distribute it to all other field offices on a continual basis. It also disseminates the information to 30 public users, such as radio and television stations,

agribusiness establishments, newswire services, publishing companies, and agricultural information retailers.

In contrast, the Electronic Dissemination of Information System's primary objective is to distribute, to both public and government users, all of the agricultural information and reports that have been put into it by all of the Department's participating agencies. The system does not have the same public users as the network, with two exceptions.

Despite the differences, however, Marketing Service personnel viewed the system as a possible alternative for replacing or upgrading its network. As a result, coordination between the two was established early and is continuing. The Marketing Service proposed placing all of its information in the system as well as in the network. Doing so would test the feasibility of the system as a possible alternative to its network. However, because the cost of entering data into the system was about seven times higher than the initial estimate, the Marketing Service, after the first 3 months, substantially reduced the amount of data it put into the system. The Marketing Service continues to operate its network. (See page 17.)

As requested during our August 7, 1986, briefing, we are providing agenda items for future discussions with the Department. We suggest that you discuss the need for additional monitoring of both public and government users regarding the quality of service experienced with the system. More attention to user monitoring during the initial stages of operation would have provided better information on whether or not the system was functioning as intended, the contractor was performing in accordance with the contract and generally accepted practices, and the users were receiving both data and services consistent with the objectives of the contract.

We also suggest that you discuss the Department's plans to continue coordinating operations of the network and the system. Continued coordination could help ensure that initiatives for improving services to users of either the system or the network will be fully identified and implemented cost-effectively.

As agreed with your office, unless you publicly announce its contents earlier, we plan no further distribution of this fact sheet until 30 days from its issue date. At that time, we will send copies to other interested congressional committees and members; the Secretary, Department of

Agriculture; the Director, Office of Management and Budget; the Administrator, General Services Administration; and other interested parties. We will also make copies available to others on request.

Should you need additional information, please call me on 275-9675.

Sincerely yours,

Howard Rhile
Associate Director

Responses to Questions About the Department of Agriculture's Electronic Dissemination of Information System and Contract

System Description

The primary objective of the Department of Agriculture's Electronic Dissemination of Information System is to make available all the data in the system to users as soon as these data are received or at specified release times established by the Department's agencies. Each agency determines the extent to which it will use the system and what perishable data to put into the system. Therefore, the range of data available is determined by the total amount of data put into the system by all participating agencies.

The system became operational in July 1985. A year later, 6 agencies were loading (entering) data into the system, and 10 agencies were accessing data in the system.

These agencies are charged for loading and storing the data they enter into the system and for any data they retrieve from the system. The system's development cost was $250,000 and the Department's fiscal year 1986 operating costs for loading, storing, and retrieving data were about $7,900 per month, which was distributed among the agencies using the system.

As of July 1986, 16 public users were accessing data on the system. The public user rates for accessing the system were established by and are paid directly to the contractor. The rates are contained in separate contracts with each public user. Public user costs range from a minimum of $150 per month on up, depending on the extent of system use.

The system users, both public and government, have a choice of data delivery methods, protocols,[2] and what data they want to receive. However, public users are required to receive larger units of data than government users.

Objectives, Scope, and Methodology

Our objective was to answer the subcommittee Chairman's questions on the Department of Agriculture's Electronic Dissemination of Information System and on the contractor's performance in operating this system. Regarding the legal issues the Chairman has separately raised, our Office of General Counsel currently is considering the 10-percent credit granted the Department of Agriculture from the revenues collected by the contractor from the system's public users. These issues, which were not part of this review, will be separately addressed by that Office.

[2]A protocol is a formal set of transmission rules that permit computers to communicate with each other.

We interviewed Department and agency officials involved with the planning, management, and use of the Electronic Dissemination of Information System. We also interviewed officials from Martin Marietta Data Systems, the contractor that developed the system and that is providing data processing services. We compared the mission, system characteristics, and public user groups of the system with the Market News Network operated by the Agricultural Marketing Service, a Department agency. We analyzed the coordination between the system and the network during the development and implementation of the system. We also obtained the views of users regarding the system, the network, and the operational costs to users associated with both. In addition, we reviewed pertinent documents obtained from the contractor, the users of both the system and the network, and the Department and several of its agencies. We conducted this review in accordance with generally accepted government auditing standards.

We interviewed 9 of the 16 public users of the system. These nine were selected based on the type of business, geographic location, and amount of system use. They included four agricultural information retailers, three agribusiness establishments, one publishing company, and one news media company.

In comparing the mission, system characteristics, and public user groups of the system with the network, we also interviewed 7 of the 30 public users of the network. These seven were selected based on geographic location and type of business, and included two publishing companies, one radio and one television station, one news media company, one agricultural information retailer, and one agribusiness establishment.

Our Responses to the Chairman's Questions

Detailed responses to each of the five questions raised in the Chairman's letter follow.

Required Contract Deadlines

1. Is the contractor meeting required deadlines for providing service to the public and to the Department of Agriculture users?

The contract for the system, awarded on September 27, 1984, required the contractor to provide the following to the public users, to the Department, and to its agencies by June 1985:

- A system developed and delivered to electronically disseminate information.
- The ability to support specified communications protocols.
- Three types of data accesses using either established profiles or ad hoc requests.
- The ability to transmit large units of data, such as a complete agricultural report, to public users and to send smaller units of data, such as an extract from an agricultural report, to government users.

The contractor has met the contract's requirements by providing this system and the services to the system's users. Initially, however, the deadline for installing one of the three data access methods was not met. This feature was fully implemented for users in June 1986, about a year later.

The contractor was required to develop and implement the system for both public and government users within 36 weeks from the date of the award, September 27, 1984. The system began operation in July 1985, about 2 months late. Department officials told us that the system delivery date was acceptable and within the performance range of the contract.

The contract also required the system to support three communications protocols:

- Teletype-ASCII.[3]
- IBM 2780/3780, BSC.[4]
- IBM 3270, BSC.

The system supported all the protocols required at the time it began operation. However, the contractor stated that although the system supported the teletype protocol, it did not support it well. Because many of the users accessed the system using the teletype protocol, this ultimately created a technical problem that adversely affected the quality of service provided to users. (See pages 10-13.)

[3]ASCII is a communications code set and stands for American National Standard Code for Information Interchange. It uses an asynchronous transmission that allows each character to be sent at random, one at a time.

[4]BSC means binary synchronous and is a protocol primarily to support communication between a host computer and its terminals or between computers.

Another provision of the contract required that three types of data accesses be made available to public users. The first data access was an automatic dial-up feature allowing a public user to automatically receive reports from the system immediately upon their release, based on an established profile of desired reports on file in the contractor's computer. The second involved ad hoc or periodic accessing of the system by the public user in order to receive reports, also based on an established profile of desired reports on file with the contractor. The third was the ad hoc request by which users identify desired reports through a series of menu screens. The contractor provided the second and the third data access types when the system started operation in July 1985. However, the automatic dial-up feature was not fully implemented until June 1986, about 1 year later.

The contractor interpreted the contract as requiring an automatic dial-up feature, but it did not believe such a feature was required for all protocols. The contractor provided this feature for only the IBM 3270 protocol at the time the system became operational in July 1985. Department officials, on the other hand, interpreted the contract as requiring the automatic dial-up feature for both the IBM 3270 and the IBM 2780/3780 protocols. Both Department and contractor officials agreed that an automatic dial-up feature on the teletype protocol was not practical to develop because of technical considerations.

Although the automatic dial-up feature became fully operational on all the required protocols in June 1986, as of the end of July 1986, none of the 16 public users used the automatic dial-up feature on any of the available protocols. The primary reasons for this were that (1) most public users currently accessing the system use the teletype protocol and no automatic dial-up feature for teletype is available and (2) the additional costs associated with the automatic dial-up feature, such as the cost of a dedicated communications line, were too high. The nine public users we interviewed were not willing to pay the additional costs to obtain and use the automatic dial-up feature. Department officials told us that, although the automatic dial-up feature is not used at this time, they believe it will be needed and used in the future as the technological abilities of the users increase.

The contract also requires the contractor to provide, or make available, large, accessible units of data to public users at the specified release times and dates dictated by the agencies. It further requires the contractor to provide or make available data in smaller accessible units to government users. We found that the contractor made the required units

of data available. To enable the contractor to simultaneously transmit data to all public users, the use of the automatic dial-up feature is required. However, since none of the public users were using the automatic dial-up feature, we could not determine whether data would be provided simultaneously.

Quality of Service and Range of Data

2. Are the quality of service and the range of data offered by the contractor consistent with the objectives of the Electronic Dissemination of Information System?

The system's main objective is to make data in the system available to users as soon as they are loaded or at specified release times established by the Department's agencies. The contract did not, however, contain specific service quality standards. We therefore reviewed the quality of the system's performance in terms of (1) the timeliness and completeness of data and reports loaded into the system, (2) the ease of using the system, and (3) the effective handling of identified problems. After 12 months of operation the quality of service offered by the contractor has improved and is consistent with the objectives of the system. However, administrative and technical problems with the system during the first year of operation adversely affected the quality of service.

The range of data offered depends on the information loaded into the system by the agencies. Most public users we interviewed were satisfied with the range of data available from the system.

Quality of Service Was Poor During First Year of Operation

Many of the agency officials we interviewed and all of the public users we visited told us that they considered the quality of system service to be poor and the problems serious during the first year of the system's operation. We were told that many release times and dates for providing data to users were missed during the first year of operation. We found that these delays resulted from difficulties that agencies experienced when loading data into the system and public users experienced when accessing and retrieving data from the system. Statistics on the number of missed release times and dates were not available from either group. We also found that neither the contractor nor the Department formally surveyed all public users regarding the quality of service prior to the spring of 1986.

All of the agencies that loaded data into the system had difficulty transmitting data to the system. Although the difficulties diminished by the

spring of 1986, they were not corrected until July 1986. We found that both contractor-related technical problems in loading the data and agency-related administrative problems caused the difficulties.

The contractor-related technical problems included instances where

- data being loaded by agencies using the teletype protocol were not accepted consistently by the system;
- communications links between the agencies and the contractor's facility broke, resulting in data not reaching the system;
- changes made to the system to correct an identified technical problem at one agency prevented another agency's transmittal of data to the system; and
- various agency hardware and software were not able to communicate with the contractor's system despite the contractor's agreement that the system would be able to communicate with all agencies' equipment.

Department and agency administrative problems with loading data also contributed to the contractor's missed release times and dates:

- Department staff did not monitor the loading function on a departmentwide basis in order to identify and log the extent of loading problems so that they could hold the contractor accountable for performance and corrective actions.
- Some agency staff assigned to perform the loading function were inexperienced with the system, resulting in delays in loading the data.
- Some agency staff assigned a low priority to the loading function, placing other work or activities ahead of loading.
- Agency staff did not routinely verify that a successful transmission to the system had actually occurred, causing system users to call agencies about missing data.

Our survey disclosed that during the first 6 months of the system's operation, the Department did not obtain the needed corrective action from the contractor to resolve the technical loading problems identified by individual agencies. For example, agency officials stated that the technical problems persisted long after they had notified both the contractor and appropriate Department officials. After several months of operation, the Department initiated steps to solve loading problems. One of the steps was to hold weekly meetings with the contractor to obtain current information on the contractor's plans and actions to correct these problems.

By the spring of 1986, conditions had improved. Many of the technical problems experienced with loading data into the system, except those associated with the teletype protocol, were corrected by the contractor. Also, agency loading problems were being monitored and logged by the Department, spot checks were being made to verify successful data transmissions to the system, and agency data loaders were receiving additional training and becoming more proficient at their job.

The contractor corrected the last major technical loading problem associated with the teletype protocol in July 1986. At that time, agency officials told us that the system loading function was finally working smoothly. Although some administrative loading problems still continue in some agencies, they have not had a detrimental effect on the contractor's ability to meet release times and dates. Department officials told us that they were continuing to identify actions needed to improve the loading function.

All of the public users we interviewed said the quality of service from the contractor and the system was poor during the first year. Specifically, public users we visited reported that they had difficulty accessing the system and retrieving reports. They also said that they received garbled data transmissions. Other problems reported to us included data transmissions that were interrupted before completion, the inability to exit the system upon completion, and slow system response times. These technical difficulties often caused public users to access the system several times before successfully retrieving reports.

Although the contractor-related technical loading problems and the agency administrative loading problems improved in the spring of 1986, the public users we interviewed in June and early July 1986 said that they were still experiencing technical problems in accessing the system and retrieving reports. This was primarily because all of the public users we interviewed were accessing the system using the teletype protocol.

On July 14, 1986, about a year after the system became operational, the contractor corrected the teletype protocol problems by installing a different operating system[5] that more fully supported the teletype protocol. This change improved the quality of service and alleviated many of the recurrent technical problems experienced by users during the

[5]An operating system is an organized collection of software to assist and, in part, control the operation of a computer.

first year of operation. All of the public users we contacted at the end of July 1986 reported a significant improvement in the system's operation. Furthermore, the Department confirmed this improvement by announcing that, from a technical standpoint, the system was now performing in accordance with the requirements specified in the Request for Proposals and formal acceptance testing of the system could begin.

Little Monitoring to Determine Service Quality of System

Prior to the spring of 1986, the Department and the contractor did little monitoring of the public users regarding the quality of service they were receiving. In lieu of monitoring, the contractor's activities were limited to responding to problems identified by public users. In addition, we found that the Department did not formally survey all public users regarding service problems, although several public users had complained in writing about difficulties in retrieving reports from the system.

In April 1986 one local public user was invited to attend a meeting with both Department and contractor officials to discuss experiences and problems with the system. Department officials informed us that because of the success of that meeting, they planned to meet with all other public users over several months to discuss service quality and system effectiveness. In June 1986 the contractor established a systematic monitoring approach to routinely contact all public users.

Because we found that government users did not retrieve much data from the system, except to occasionally verify that data were successfully loaded into the system, we did not evaluate the contractor's or the Department's efforts to monitor the quality of the service to government users during data retrieval.

Range of Data on the System Is Satisfactory

The range of data is determined by the variety of reports that each agency loads into the system. As of July 1986, six agencies[6] made perishable or time-sensitive data available in the system. These data included agricultural market reports, crop and livestock statistical reports, economic outlook and situation reports, foreign agricultural trade leads, export sales reports, world agricultural roundups, and Department and agency news releases.

[6]Agricultural Marketing Service, Economic Research Service, Foreign Agricultural Service, National Agricultural Statistics Service, Office of Governmental and Public Affairs, and World Agricultural Outlook Board.

One agency, the Agricultural Marketing Service, originally placed all of its data and reports in the system. However, after the first 3 months of system operation, it decided to significantly reduce the number of reports it loaded into the system. This decision was based on budgetary constraints. According to an official of this agency, data loaded into the system were reduced by approximately 90 percent.

During our discussions with users, we requested information on the range of data currently in the system. Most public users we interviewed were satisfied with the range of data available and did not suggest that reports be added to the system. Because we found little data retrieval from the system by government users, we did not obtain their views on the range of data in the system.

Retail Information Services

3. Is the contractor offering retail information services in violation of the terms of the contract?

We found no evidence that the contractor is offering retail information to public users, that is, marketing the system, in violation of the contract. The contract (1) prohibits the contractor from selling or otherwise providing any data in any form that is processed, stored, or distributed under the contract to any person, institution, or entity other than an authorized system user, (2) requires that the contractor make the data available to any public party capable of meeting the technical and financial requirements of the system, and (3) requires that the data be made available to public users without enhancing or changing the information. These provisions were intended to prevent the contractor from gaining an unfair competitive advantage over other firms by using the Department's data for reasons unrelated to the performance of this contract.

The contract is unrestrictive with respect to who can access the system as a public user. Under the contract, the contractor cannot deny access to the system to any public user who is technically capable of receiving data electronically and who is willing to pay for the service (a monthly minimum charge plus any additional charges based on the amount of usage). The contract states that service to public users is oriented toward those who want to receive broad categories of data in large quantities, that is, primarily those organizations that intend to repackage the data and disseminate them to end users. The contract further states that, for service to the public,

"[t]he targeted audience is thought to include but is not limited to commercial information retailers, publishers, news media, agribusiness establishments, public institutions or organizations, administering information dissemination systems."

Department officials told us that although the system is directed toward public users who want large quantities of data, it does not preclude other public users from accessing the system. We found no evidence that the contractor sold or otherwise provided data obtained under the contract to anyone other than authorized system users. In addition, we found that all public users accessing the system fit the broad definition of a public user.

The contract also requires that the contractor make the data available to users without enhancements or changes. According to the contract, the contractor markets a computer service that allows users to access a computer system. The contractor is not in the business of selling or analyzing agricultural data. The agencies, not the contractor, determine the content and size of each unit of data that is available to system users.

Public users we interviewed did not identify any reports received from the system that were enhanced by the contractor. Further, they did not identify any instances of the contractor changing or otherwise altering the content of the data loaded into the system by agencies.

As a future enhancement for public users, various agency officials told us that they are considering breaking large units of data into smaller units. The Department's Office of General Counsel has formally advised the agency officials that they have the authority to break large units into smaller, more discrete sections. Seven of the nine public users we interviewed expressed a desire to have some larger units broken into such segments.

Public User Charges

4. Are the charges to public users of the system consistent with the terms of the contract?

The contract does not specify how much the contractor may charge public users of the system. According to the contractor and the documents we examined, the price schedule for public users was established by the contractor in June 1985 and was derived from a series of benchmarks based on the contractor's standard commercial rates. The charges are set forth in separate contracts with each public user. We reviewed the price schedule and obtained the views of the public users we visited

regarding its fairness. Most public users said that the charges were reasonable. However, one user stated that the charges were highly excessive and two others objected to having to pay for larger units of data than they needed.

In examining the price schedule, we found that the rates established in June 1985 were effective for a 90-day period beginning July 1, 1985, after which the contractor re-examined the rate schedule and the system usage and lowered some of the charges. According to the contractor, the reductions were made to provide the users with the most cost-effective pricing schedule possible after reviewing how public users were actually accessing and using the system's resources. The following shows the original and revised rate schedules.

Type of charge	Original rate for July 1985-Sept. 1985	Revised rate for Oct. 1985-Sept. 1986
Minimum monthly usage fee	$150.00	$150.00
Rate per 100 lines of text retrieval	2.00	1.20
Rate per menu entry for each selection made from a menu screen	.05	.04
Rate per hour for the time a user is connected to the system using data communications at a speed of 1200 baud[a]	12.00	12.00
Rate per hour for the time a user is connected to the system using communications at a speed of 4800 baud	18.00	18.00

[a]Baud is a unit of measure that identifies the speed of data transmitted over communications lines.

The contractor stated that, although the above rates were in effect for all public users of the system, many of the users received credit for all or part of their monthly bills. According to these officials, full credit was given for the first 3 months of system operation to three public users. In addition, eight public users were given partial credit for some monthly bills between October 1985 and June 1986. The contractor gave these credits when users reported their difficulty retrieving reports.

During our visits to public users, we discussed the fairness of the current charges for using the system. Most public users we visited believed the current charges were reasonable. Four users told us that when the system works, the costs are satisfactory and are considered a part of doing business. Two other users said that their costs were negligible because they retrieved small amounts of data. However, one user believed that the system charges were highly excessive and two others

objected to having to pay for larger units of data than they needed. The contract requires public users to receive and pay for large units and these two users only needed portions of the large units of data. They were therefore required to receive and pay for data they did not need.

Relationship and Coordination of Electronic Dissemination of Information System with Market News Network

5. What is the relationship between the Agricultural Marketing Service's Market News Network and the Electronic Dissemination of Information System, and what coordination exists?

The Agricultural Marketing Service, a Department agency, operates a separate information system called the Market News Network. This network collects daily market prices for a large variety of agricultural commodities from the Marketing Service's field offices across the country and disseminates the information to other field offices and to some public users. The network, which began about 1920, is currently used by approximately 120 of the Marketing Service's field offices. There are also 30 public users connected to the network, such as radio and television stations, agribusiness establishments, newswire services, publishing companies, and agricultural information retailers. The data in the network range from daily wholesale prices for specific fruits, vegetables, or meats in a particular city market to weekly national summary prices for groups of commodities.

The dedicated network is designed to carry a continuous flow of information to and from many locations around the country. The network uses the teletype protocol exclusively and data are transmitted at low speeds. Network users must dedicate equipment to automatically receive the information as it is transmitted.

Although public users are able to select and receive some very broad categories of information, such as all fruit and vegetable reports or all livestock reports, the selection of individual reports by city or partial reports on specific commodities is not allowed. The network primarily carries information collected by one field office to all other field offices and to some public users. The public users can only receive data from the network, whereas almost all the field offices can both send and receive data.

In contrast, the Electronic Dissemination of Information System functions as a central point where perishable data from many agencies can be stored for access by system users. The users can select specific reports from the system, access the system when they choose, and have

reports transmitted to them automatically or at specified times in accordance with their ad hoc requests. The system can also automatically send data to users through its automatic dial-up service. Furthermore, the system offers data transmission at various speeds and in different protocols.

At about the same time the Department was considering the electronic dissemination of information concept, the Marketing Service was reevaluating its long established network and decided that a replacement or an upgrade was desirable. Marketing Service officials viewed the system as a potential replacement for the network. Therefore, the Marketing Service participated in the initial planning and the development of the Request for Proposals for the new system. The Request for Proposals contained the Marketing Service's projections of the number and size of the reports it intended to put in the system. The Marketing Service provided $50,000 toward the development costs of the new system.

Originally the Marketing Service intended to put all of its reports carried by the network into the system. Initial cost estimates for loading all of the Department's reports into the system were developed by the contractor. On the basis of the contractor's estimates, the Department allocated costs to its agencies. Accordingly, an estimate of $1,000 to $1,500 a month was provided in April 1985 to the Marketing Service for loading all of its reports. The Marketing Service agreed to budget $1,500 a month for the system. However, a July 1985 estimate indicated that the Marketing Service's loading costs would be approximately $8,000 per month. Its actual cost for the first 3 months of system operation was approximately $10,000 per month.

The Deputy Administrator of the Marketing Service told us that the Marketing Service is constrained by the original $1,500-a-month budget figure as its commitment to the system. He further stated that the Marketing Service is unwilling to increase its commitment to cover the cost of loading all its data and reports into the system. As a result, the Marketing Service has substantially reduced the amount of data it puts in the system because of its budget constraints. The Deputy Administrator also said that the Marketing Service is still interested in increasing the number of reports in the system, but only if additional data loading costs can be reduced.

Only one of the nine public users of the system we interviewed had requested that additional Marketing Service reports be put in the

system. Four of the seven public users of the network we interviewed stated that they were not interested in receiving the Marketing Service's reports through the system. These users were satisfied with their current costs and had no objection to receiving many reports because of the low cost of using the network. They also had well-established internal operations to review the reports they received, rather than requesting certain reports or accessing the system to find out when reports were available. In addition, the times these reports came across the network coincided with users' business needs. Further, public users received the reports automatically without any special handling or processing.

The fifth user we interviewed was interested in receiving the Marketing Service's reports in the system and was going to contact the contractor to get information about the system. However, this user was not willing to pay a higher cost than the cost of obtaining the reports from the network.

The remaining two network users we interviewed were the only users common to both the network and to the system. They both received the Marketing Service's reports through the network rather than the system. We were told that they used the network because user costs for the network were less; they were already using the needed dedicated teletype equipment to receive data in the network; and they could receive all the Marketing Service's reports automatically from the network and could receive only a limited number of the Marketing Service's reports from the system.

Despite the limited amount of information the Marketing Service places in the system, it is still an active member of the Electronic Dissemination of Information Policy Board and participates in system user group meetings. The Policy Board is a steering committee of senior Department officials that makes policy decisions regarding the system. The system users group meetings are attended by key agency staff who work directly with the system. This group meets to discuss the management and performance of the system as well as any needed improvements.

Marketing Service officials told us that they will continue to contribute to improving the system. However, without entering all Marketing Service reports in the system for a sustained period as a true test, Marketing Service officials said that they will not have sufficient information to determine whether the system is an alternative to its network.

Request Letter

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NINETY-NINTH CONGRESS

Congress of the United States

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SUBCOMMITTEE
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January 20, 1986

The Honorable Charles A. Bowsher
Comptroller General of the
United States
General Accounting Office
441 G Street, NW
Washington, D. C. 20548

Dear Mr. Bowsher:

During the past two years, the Subcommittee has been conducting an investigation of federal agency efforts to establish systems for the electronic collection and dissemination of information. In 1985, three days of hearings were held on this subject, and a report based on those hearings is now being prepared. I expect that the Subcommittee will continue work on electronic information activities in the foreseeable future.

One of the electronic data systems that has been reviewed during this investigation is the newly established Department of Agriculture system called Electronic Dissemination of Information (EDI). A contract for EDI was awarded in September 1984, and the system recently began commercial operations. The Subcommittee has received complaints that the EDI system is failing to provide service in accordance with the terms in the contract.

I request the assistance of the General Accounting Office in investigating the EDI system. There are two general types of issues that need to be reviewed. The first relates to the performance by the EDI contractor. Among the questions that should be addressed are:

1) Is the contractor meeting required deadlines for providing service to the public and to Department of Agriculture users?

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2) Are the quality of service and the range of data offered by the contractor consistent with the objectives of EDI?

3) Are the charges to public users of the EDI system consistent with the terms of the contract?

4) Is the contractor offering retail information services in violation of the terms of the contract?

The second set of issues relates to the role of EDI in the Department's overall public dissemination activities. The Agricultural Marketing Service (AMS) currently operates a system for the dissemination of market price information. There appears to be a lack of coordination between the AMS system and EDI, and this may be increasing costs and making both systems less useful to public users and to users within the Department. The relationship between AMS and EDI needs to be thoroughly reviewed.

EDI is an ambitious undertaking, and it is comparable to large data systems now being considered by other agencies, most notably the EDGAR system at the Securities and Exchange Commission, and the trademark automation efforts of the Patent and Trademark Office. The PTO trademark automation project was the subject of a recent GAO report.

A prompt review of the implementation of EDI is important in order to make sure that the system is operating as planned. I also want to identify any problems as quickly as possible in order to help other agencies avoid making the same mistakes.

Any questions about this letter can be directed to Robert Gellman or Bill Cherry of the Subcommittee staff. They will assist your staff in establishing a timetable for this investigation and in determining the manner in which findings should be provided to the Subcommittee.

Sincerely,

Glenn English
Chairman

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